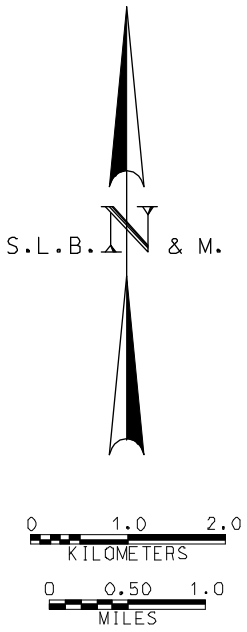
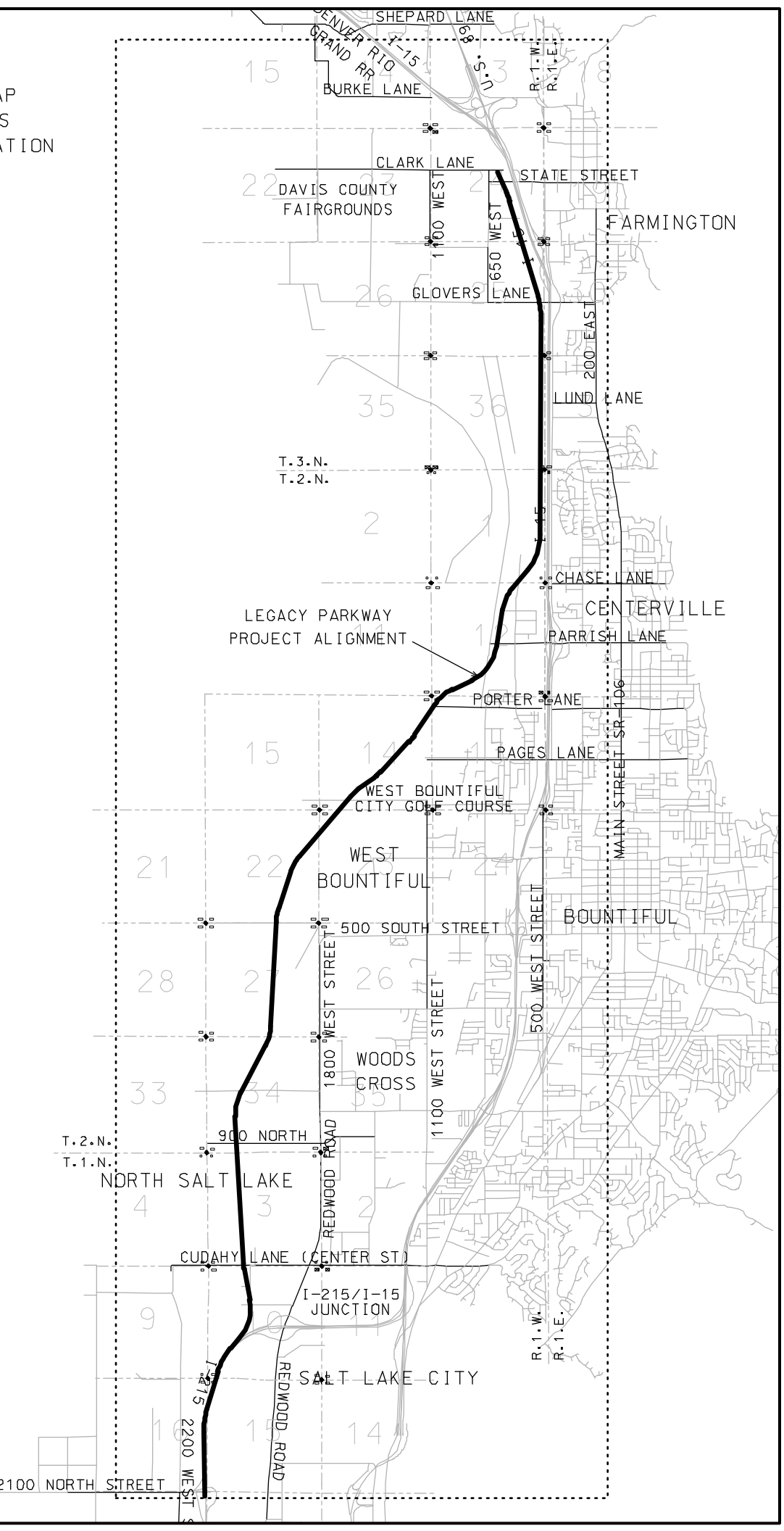
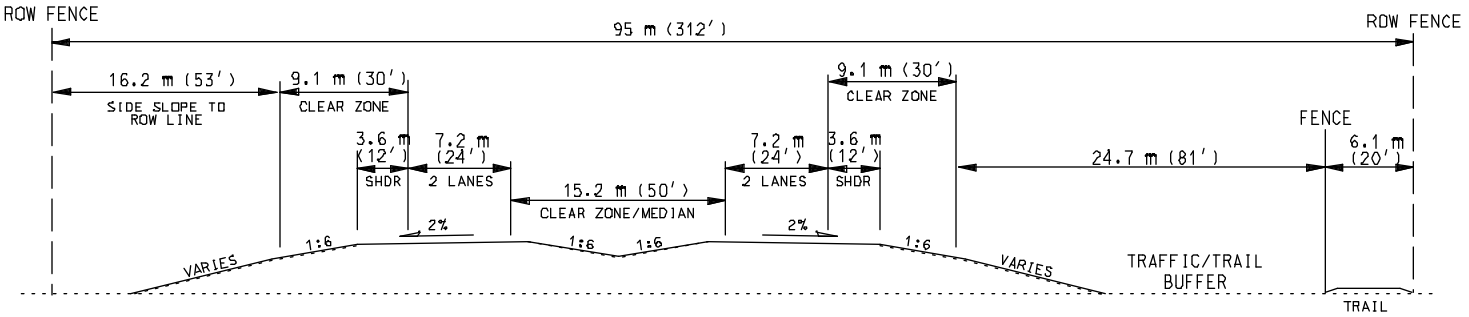
PN#200350493
LEGACY PARKWAY VICINITY MAP
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 1

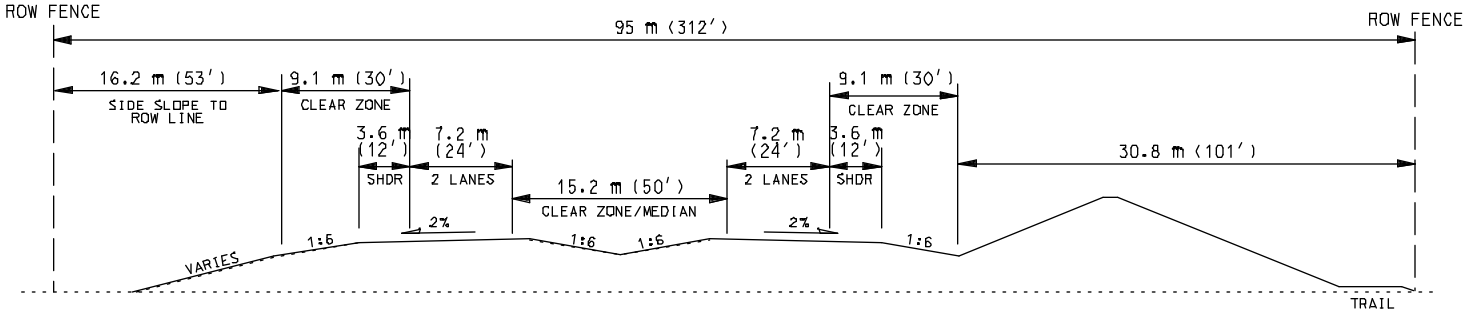


LOCATION MAP





4-LANE SECTION WITHOUT BERM



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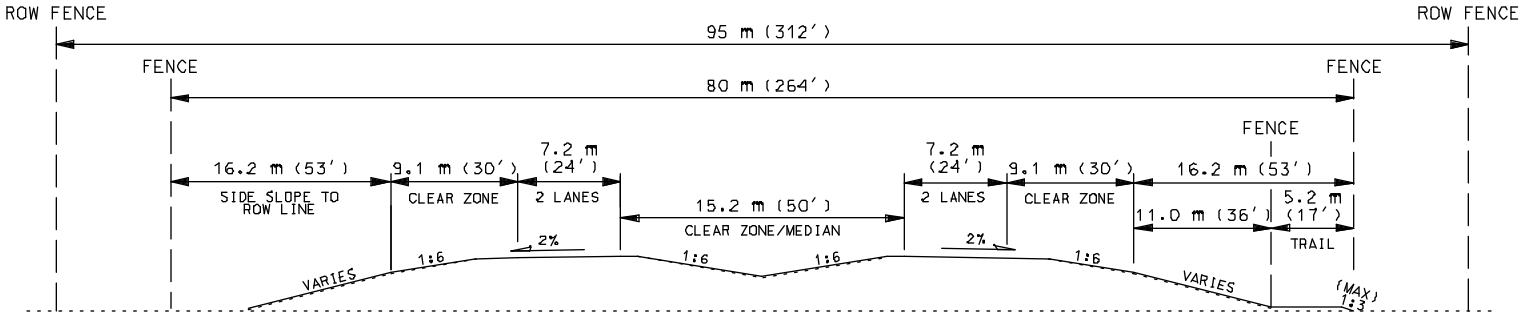


4-LANE SECTION WITH REDUCED FOOTPRINT

LEGEND

-------- WATER QUALITY TREATMENT AREA

PN#200350493
TYPICAL ROADWAY SECTIONS
SHEET 2

PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 3

LEGEND

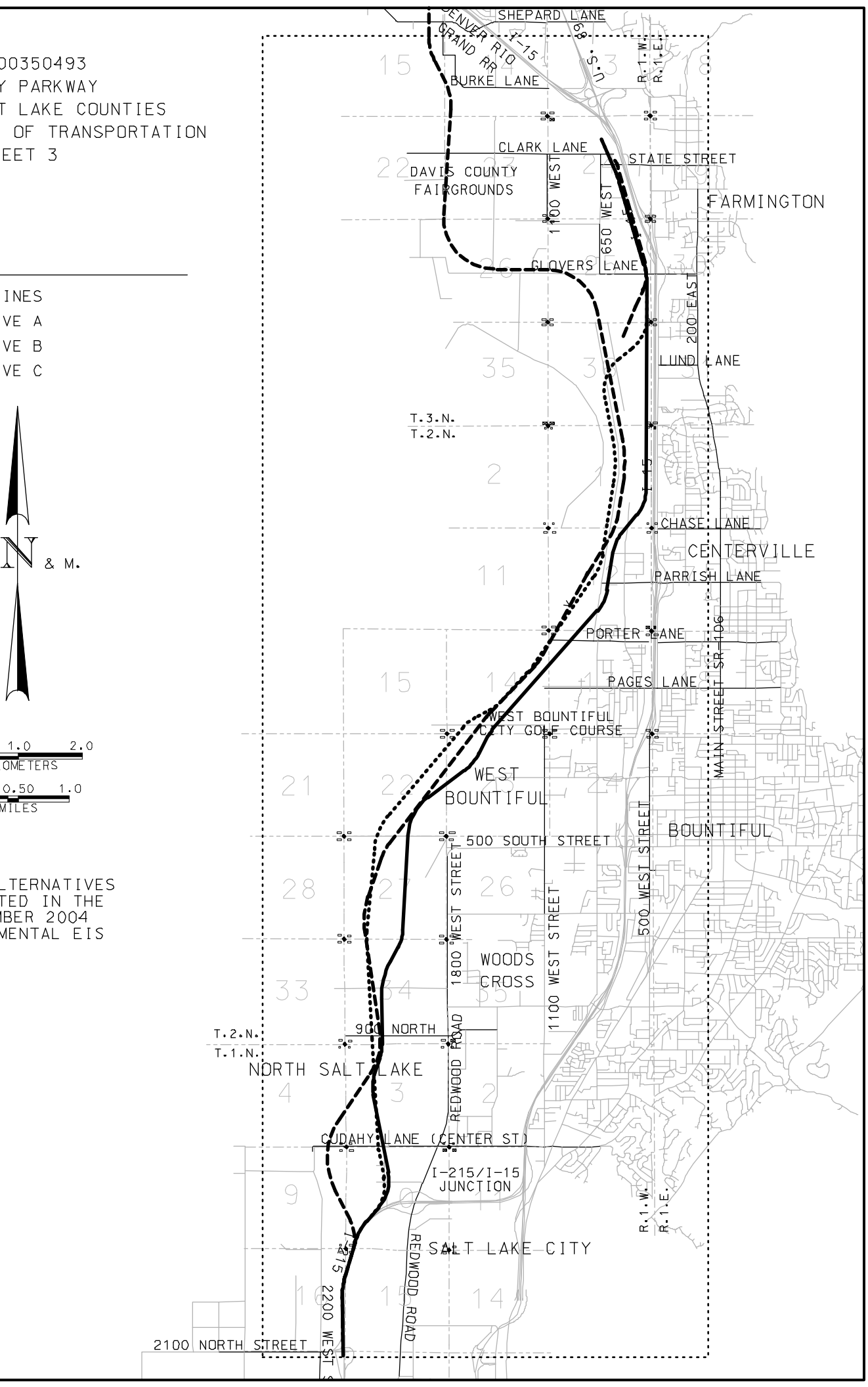
- SECTION LINES
- ALTERNATIVE A
- ALTERNATIVE B
- ALTERNATIVE C

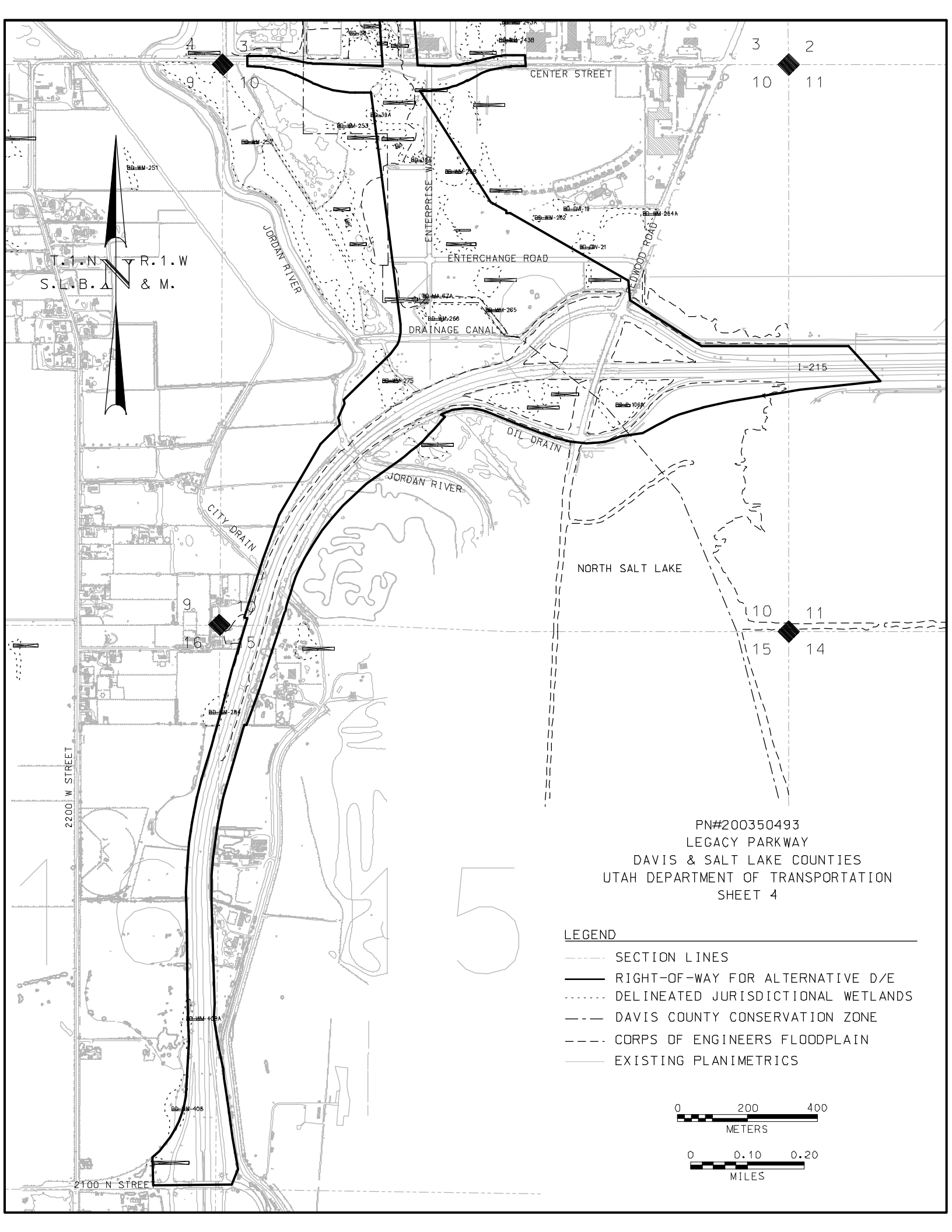
S.L.B. & M.

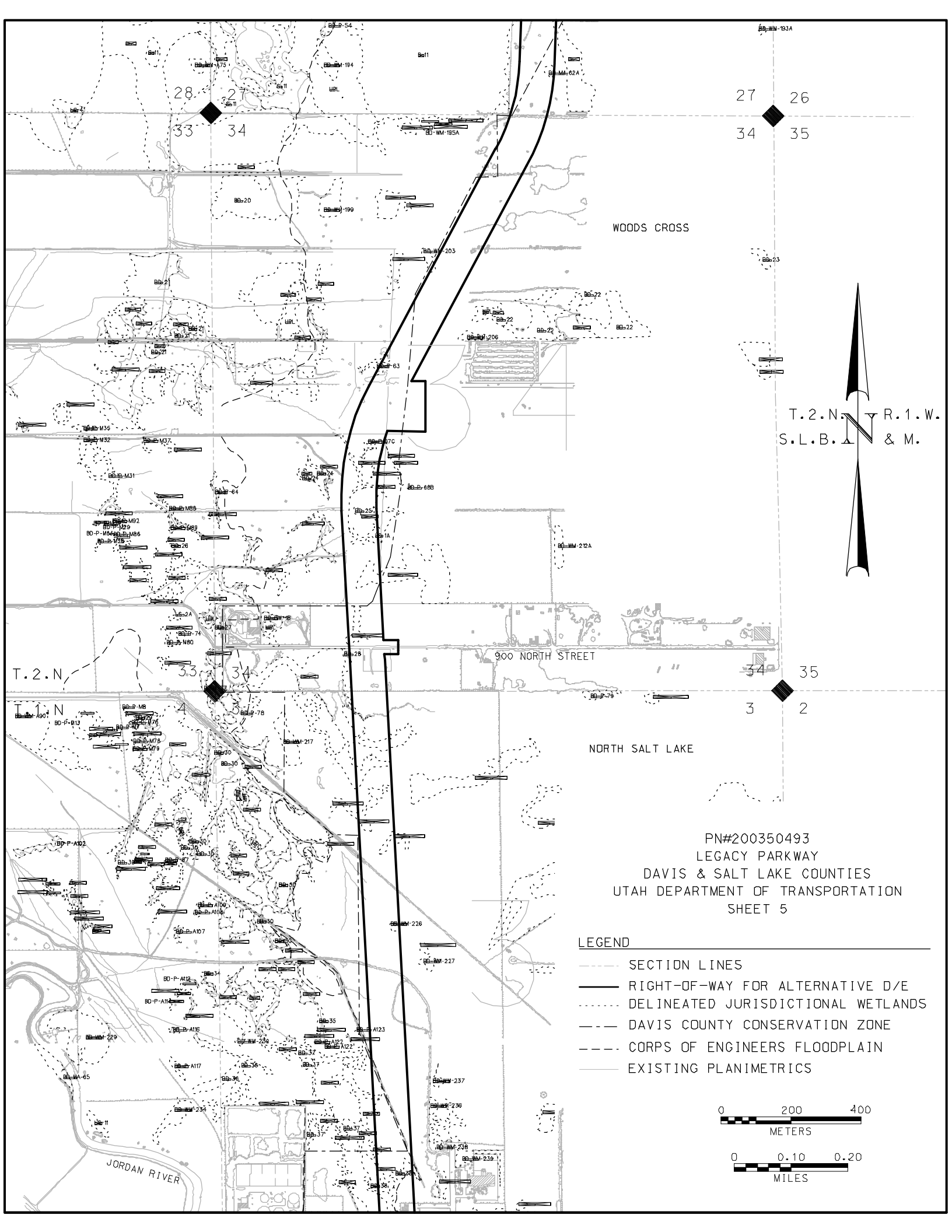
0 1.0 2.0
KILOMETERS

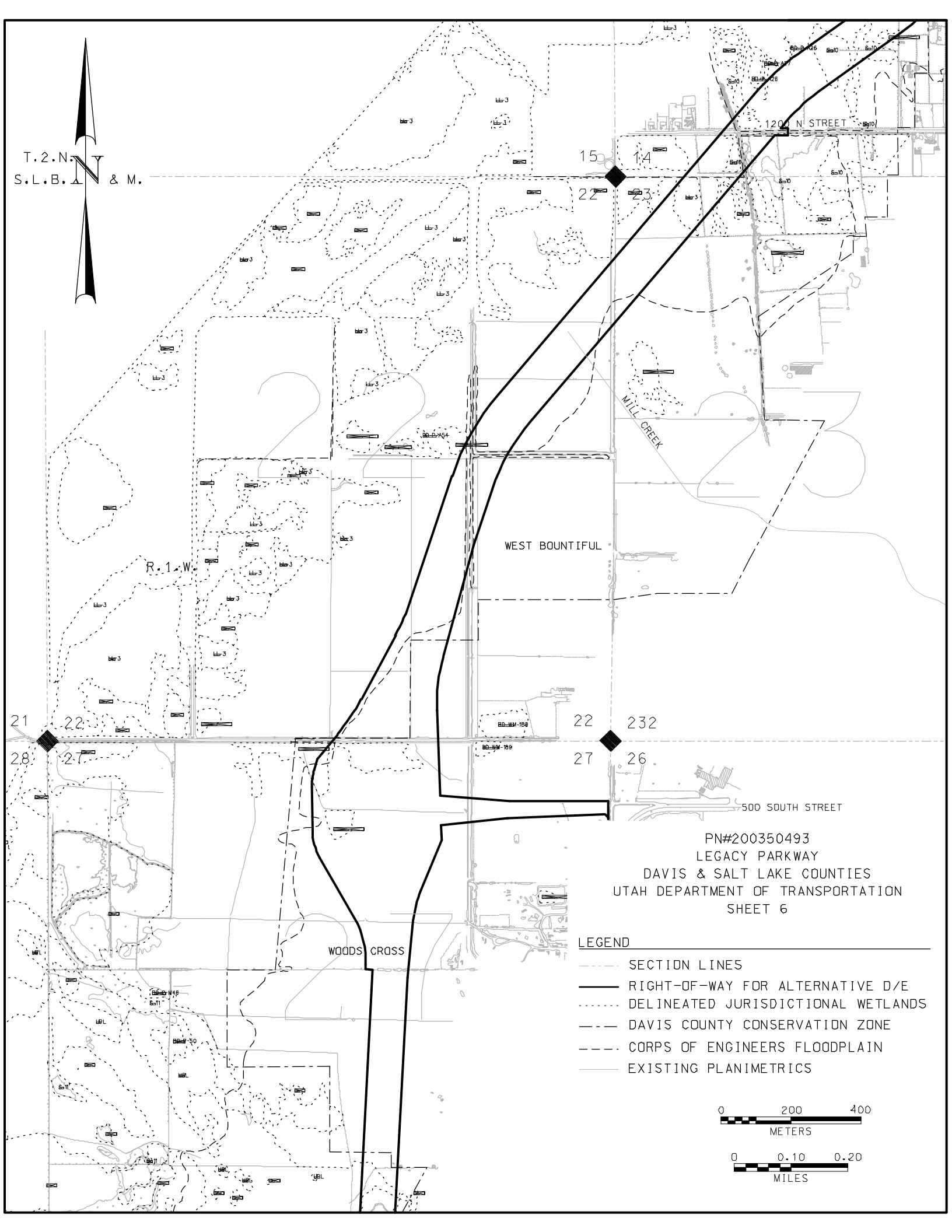
0 0.50 1.0
MILES

OTHER ALTERNATIVES EVALUATED IN THE DECEMBER 2004 SUPPLEMENTAL EIS

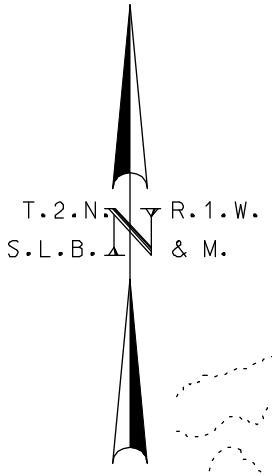



CENTER STREET
ENTERPRISE WAY
JORDAN RIVER
ENTERCHANGE ROAD
REDWOOD ROAD
DRAINAGE CANAL
I-215
OIL DRAIN
JORDAN RIVER
CITY DRAIN
NORTH SALT LAKE
2200 W STREET
2100 N STREET
T.1.N R.1.W
S.L.B. & M.
BD-WM-251
BD-WM-252
BD-WM-253
BD-WM-257
BD-WM-259
BD-WM-264A
BD-WM-265
BD-WM-266
BD-WM-275
BD-WM-284
BD-WM-408
BD-WM-408A
PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 4
LEGEND
SECTION LINES
RIGHT-OF-WAY FOR ALTERNATIVE D/E
DELINEATED JURISDICTIONAL WETLANDS
DAVIS COUNTY CONSERVATION ZONE
CORPS OF ENGINEERS FLOODPLAIN
EXISTING PLANIMETRICS
0 200 400
METERS
0 0.10 0.20
MILES


WOODS CROSS
900 NORTH STREET
NORTH SALT LAKE
JORDAN RIVER
T.2.N.
T.1.N.
T.2.N. R.1.W.
S.L.B. & M.
PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 5
LEGEND
SECTION LINES
RIGHT-OF-WAY FOR ALTERNATIVE D/E
DELINEATED JURISDICTIONAL WETLANDS
DAVIS COUNTY CONSERVATION ZONE
CORPS OF ENGINEERS FLOODPLAIN
EXISTING PLANIMETRICS
0 200 400
METERS
0 0.10 0.20
MILES


T.2.N.
S.L.B. & M.
1200 N STREET
15
14
22
23
MILL CREEK
WEST BOUNTIFUL
R.1.W.
21
22
28
27
22
232
27
26
500 SOUTH STREET
WOODS CROSS
PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 6
LEGEND
SECTION LINES
RIGHT-OF-WAY FOR ALTERNATIVE D/E
DELINEATED JURISDICTIONAL WETLANDS
DAVIS COUNTY CONSERVATION ZONE
CORPS OF ENGINEERS FLOODPLAIN
EXISTING PLANIMETRICS
0 200 400
METERS
0 0.10 0.20
MILES

PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 7



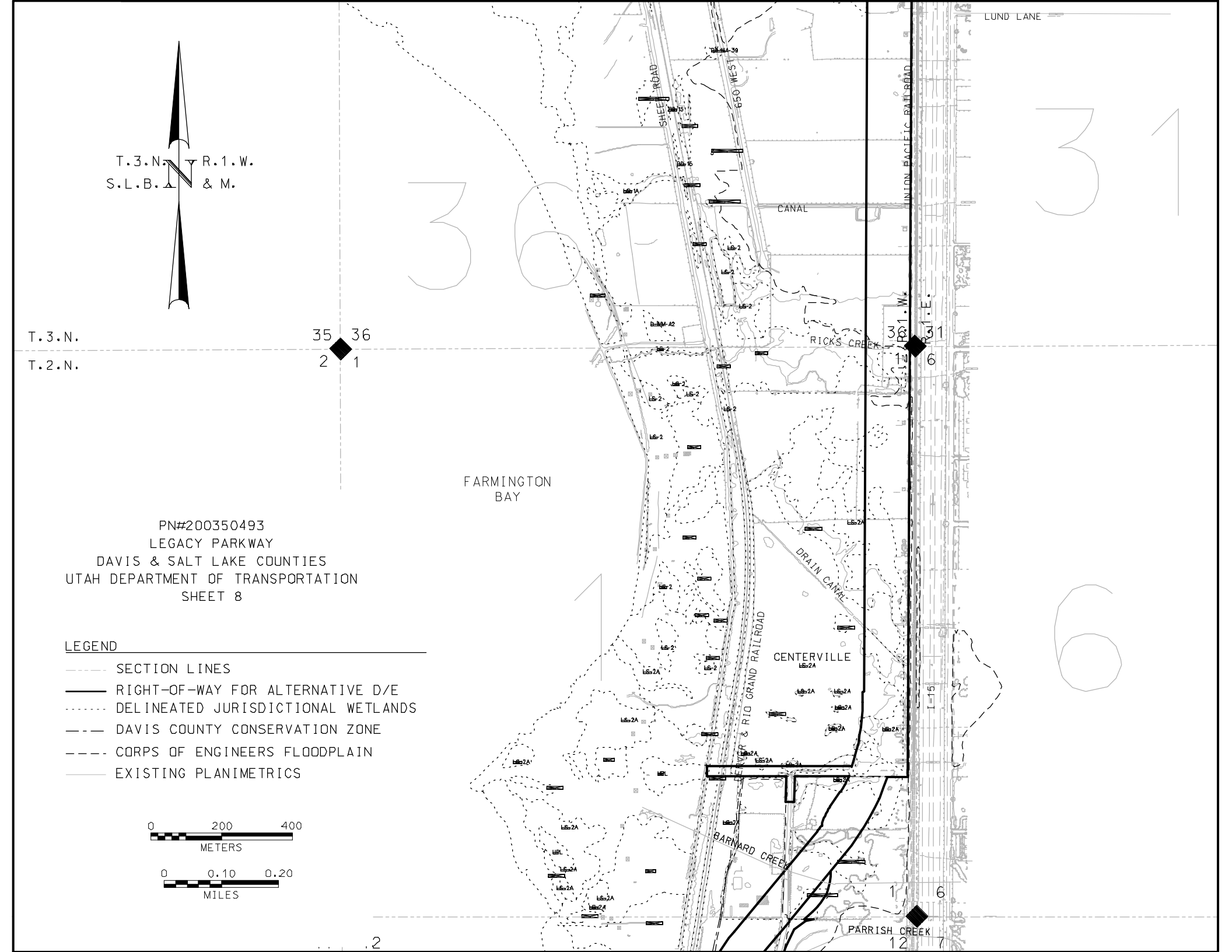
PARRISH CREEK
1250 WEST
PARRISH LANE
SHEEP ROAD
DENVER & RIO GRAND RAILROAD
CENTERVILLE
I-15
11
12
14
13
12
7
1 N
1 E
PORTER LANE
1100 WEST/HOWARD SLOUGH
DUEL/STONE CREEKS
WEST BOUNTIFUL
BOUNTIFUL SANITARY LANDFILL
1675 N STREET
PAGES LANE

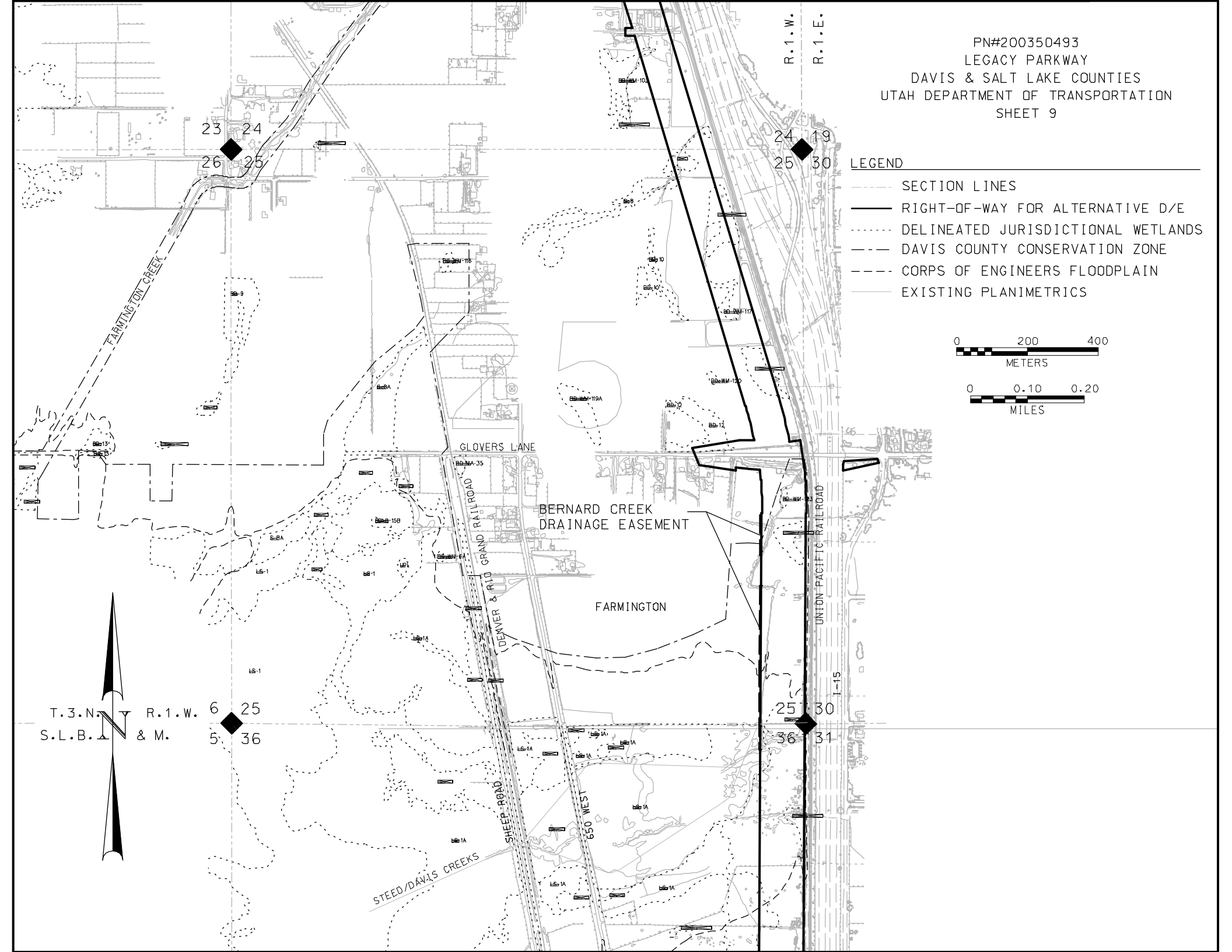
LEGEND

- SECTION LINES
- RIGHT-OF-WAY FOR ALTERNATIVE D/E
- DELINEATED JURISDICTIONAL WETLANDS
- DAVIS COUNTY CONSERVATION ZONE
- CORPS OF ENGINEERS FLOODPLAIN
- EXISTING PLANIMETRICS

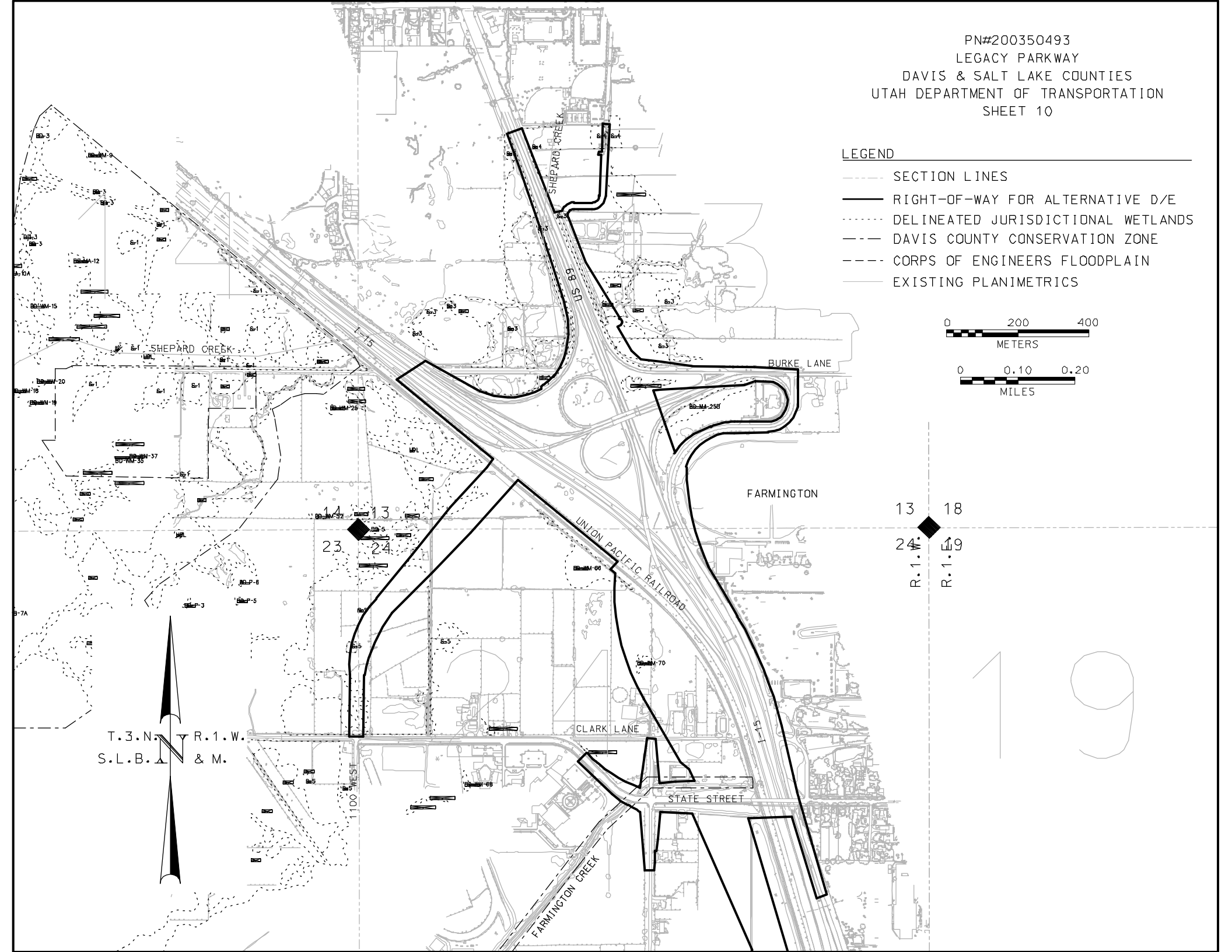
0 200 400
METERS

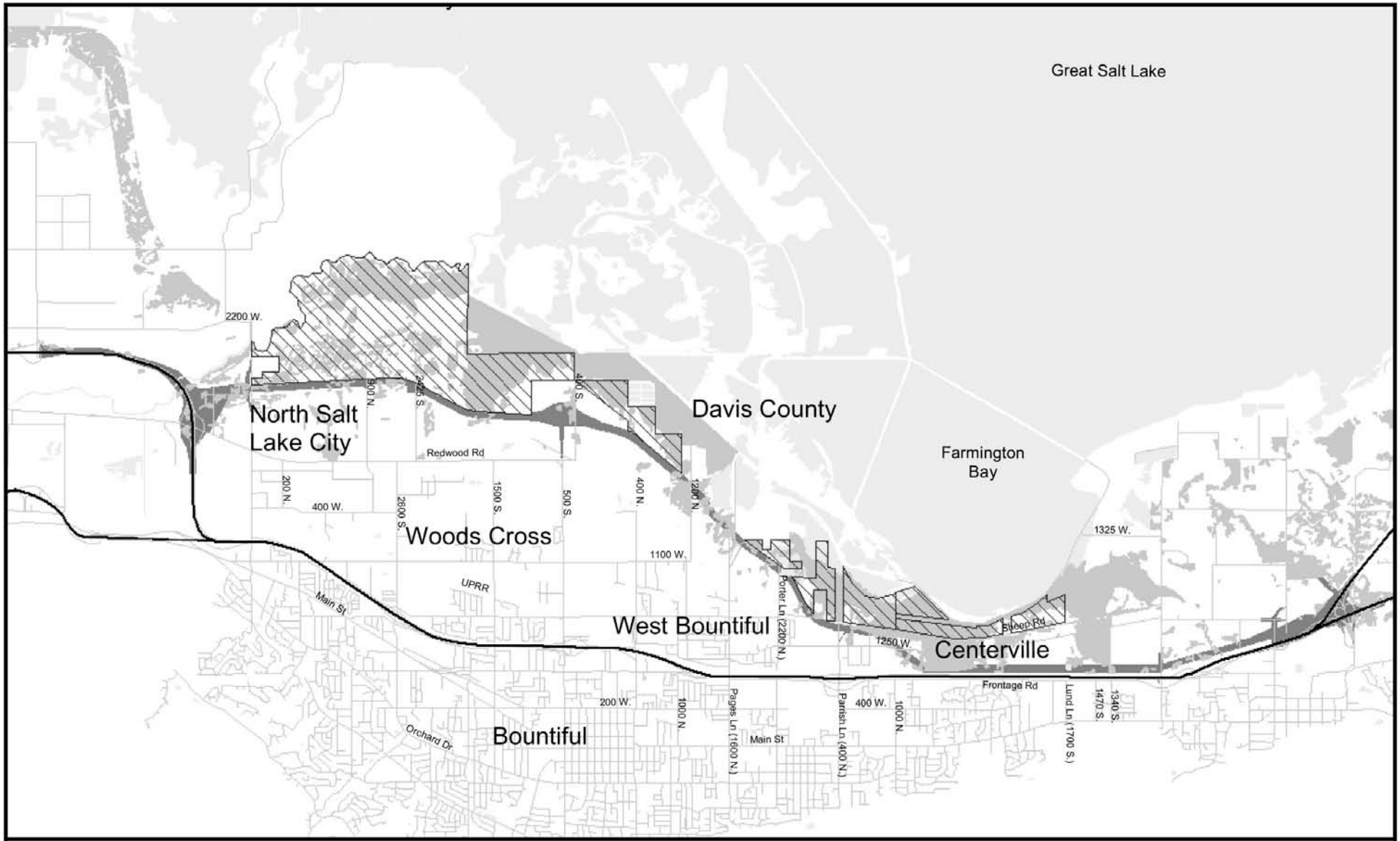
0 0.10 0.20
MILES


T.3.N.
R.1.W.
S.L.B. & M.
T.3.N.
T.2.N.
35
36
2
1
PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 8
LEGEND
SECTION LINES
RIGHT-OF-WAY FOR ALTERNATIVE D/E
DELINEATED JURISDICTIONAL WETLANDS
DAVIS COUNTY CONSERVATION ZONE
CORPS OF ENGINEERS FLOODPLAIN
EXISTING PLANIMETRICS
0 200 400
METERS
0 0.10 0.20
MILES
FARMINGTON BAY
SHEEP ROAD
650 WEST
UNION PACIFIC RAILROAD
LUND LANE
CANAL
RICKS CREEK
R.1.W.
R.1.E.
31
6
DRAIN CANAL
CENTERVILLE
I-15
LAYTON & RIO GRAND RAILROAD
BARNARD CREEK
PARRISH CREEK
12
7
1
6


PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 9
LEGEND
SECTION LINES
RIGHT-OF-WAY FOR ALTERNATIVE D/E
DELINEATED JURISDICTIONAL WETLANDS
DAVIS COUNTY CONSERVATION ZONE
CORPS OF ENGINEERS FLOODPLAIN
EXISTING PLANIMETRICS
0 200 400
METERS
0 0.10 0.20
MILES
R.1.W.
R.1.E.
T.3.N.
S.L.B. & M.
FARMINGTON CREEK
GLOVERS LANE
BERNARD CREEK
DRAINAGE EASEMENT
FARMINGTON
GRAND RAILROAD
DENVER & RIO
UNION PACIFIC RAILROAD
I-15
SHEEP ROAD
650 WEST
STEED/DAVIS CREEKS

PN#200350493
LEGACY PARKWAY
DAVIS & SALT LAKE COUNTIES
UTAH DEPARTMENT OF TRANSPORTATION
SHEET 10





LEGEND

- Alternative E
- Local Road
- Major road
- Water Body
- Wetland (in study area)
- Legacy Nature Preserve (as of the SEIS)

0 0.5 1 2 3 4
Kilometers

0 0.5 1 2 3 4
Miles

Legacy Parkway SEIS

Alternative E

Sheet 11

November 2004

PN#200350493

Friday, November 5, 2004 8:41:13 AM
\\Slc-bdc1\SLC_GIS\projects\Legacy_nature_preserve\map_docs\arcmap\lnp_pref_map.mxd

Sheet 12 Applicant's Rationale For Proposed Mitigation

Discussed below is the rationale for why UDOT believes the mitigation proposal included in this application is adequate for wetlands, wildlife, and T&E species.

WETLANDS

Different methods can be utilized to evaluate the adequacy of mitigation strategies. One method is to compare the acres of wetlands impacted to the acres of wetlands mitigated. A second method is to compare the wetland functions impacted to the wetland functions mitigated. In the FEIS and SEIS, both methods are used.

Area of Wetland Impacted Compared to Area of Wetland Mitigated

Historically mitigation was determined by comparing the amount of wetland directly impacted with the amount of wetland mitigated. Ratios greater than 1:1 were used for uncertainty relative to mitigation success and to account for indirect impacts. Indirect impacts were also mitigated with best management practices. This included such things as:

- Assuring that hydrology to wetlands would not be disrupted by the project or
- Assuring that runoff from the project was not discharged to wetlands.

Since the original permit, UDOT has reduced direct project impacts by 14 acres, from 114 acres to 99 acres, based on the project's current footprint needs. These direct impacts would be mitigated by 778 acres of wetlands contained in the 2,098-acre Nature Preserve. This results in an approximate ratio of wetland mitigation to impacts of 7.5 to 1. Over the last 12 years, mitigation ratios for Corps permits in Davis and Salt Lake counties average 2 to 1. UDOT believes that the greater than normal mitigation ratio is appropriate to account for the Parkway's non-quantified indirect effects and the preservation emphasis of the mitigation proposal.

Wetland Functions Impacted Compared to Wetland Functions Mitigated

A second method for determining the adequacy of wetland mitigation is to compare the impacts to the functions of the wetlands impacted to the benefits to the functions of the wetlands within the mitigation area (i.e., the Legacy Nature Preserve). This was the method used to determine the adequacy of the mitigation recommended in the Legacy Draft and Final EIS. Summarized below are the direct and indirect impacts, in functional units (FCUs), to each wetland function for Alternative E (the applied for project) as well as the amount of wetland function mitigated by the Nature Preserve. Wetland functions would be mitigated through preservation, enhancement, and restoration of wetlands within the Nature Preserve. Direct and indirect impacts to wetland functions compared to the mitigation to wetland functions in the Nature Preserve resulting from preservation and the restoration activities are as follows:

- *Wetland Function 1, Maintain Wetland Hydrology*
  - 60 FCUs of direct impact and 88 FCUs of indirect impact
  - Mitigation by increasing FCUs by 136
- *Wetland Function 2, Removal of Dissolved Elements and Compounds*
  - 69 FCUs of direct impact and 58 FCUs of indirect impact
  - Mitigation by increasing FCUs by 150
- *Wetland Function 3, Particulate Retention*
  - 60 FCUs of direct impact and 78 FCUs of indirect impact
  - Mitigation by increasing FCUs by 204
- *Wetland Function 4, Habitat Structure*
  - 53 FCUs of direct impact and 49 FCUs of indirect impact
  - Mitigation by increasing FCUs by 279

- *Wetland Function 5, Habitat Connectivity, Fragmentation, Patchiness*
  - 56 FCUs of direct impact and 73 FCUs of indirect impact
  - Mitigation by increasing FCUs by 211

Both evaluation methods suggest that the wetland mitigation proposed by UDOT is adequate. The ratio of wetland mitigation to impacts is equal to any project permitted by the Corps in Davis and Salt Lake counties during the last 12 years and is, on average, more than three times the normal mitigation ratio. In comparing wetland functions mitigated to those directly and indirectly impacted, four of the five wetland functions have substantially more mitigation than impacts while one function (*Wetland Function 1, Maintain Wetland Hydrology)* has slightly less mitigation than impact. If total mitigation is considered to total impact, the total mitigation credit is 980 FCUs, while the total direct and indirect impacts to wetland functions are 644 FCUs. UDOT believes that the excess mitigation of wetland functions 2 through 5 more than offset the minor deficiency in the mitigation of function 1. The approach of averaging FCU impacts and mitigation credits is consistent with the guidance published in the Corps *Aquatic Resources News, Volume 2, Issue 4, Winter 2003.*

WILDLIFE

Historically wildlife mitigation has been based on mitigation of direct impacts as measured by acres of habitat impacted and acres of habitat mitigated. It is also noted that frequently, roadway projects do not include specific wildlife mitigation recommendations. The Nature Preserve includes 1,320 acres of uplands, in addition to the 778 acres of wetlands, all of which will be managed for wildlife. This compares to 495 acres of direct impact to land that serves some wildlife habitat functions. Of these impacts, 131 acres are cropland and 218 acres are pasture, each of which is limited in its wildlife value. Section 4.13 of the Supplemental EIS provides information on wildlife habitat within the Project right of way. UDOT believes that the mitigation on the 1,320 acres of Nature Preserve uplands will adequately mitigate the direct impacts to 496 acres of ROW habitat, 349 acres of which is used for agricultural purposed and has limited wildlife value.

T&E SPECIES

The Biological Opinion recommended certain measures to mitigate potential adverse effects to the bald eagle (*Haliaeetus leucocephalus*). These measures include seasonal buffers that restrict construction activities surrounding the eagle nest and roost sites. In 2001, a snag containing the eagle nest was blown down by strong winds. An artificial nest platform was constructed in its place and this platform has been used productively through the 2004 nesting season. Successful nesting during the original construction period and the nesting eagles' adoption of the artificial nest suggest that bald eagles are relatively adaptive and the T&E mitigation commitments are sufficient.

COLLABORATIVE DESIGN TEAM

UDOT has recently established a Collaborative Design Team to solicit stakeholder participation in development of ongoing and future management options for the Legacy Nature Preserve. The team will analyze annual flora and fauna monitoring data to evaluate mitigation success, determine appropriate adaptive measures, and develop a long-term management plan for the Preserve that is conducive to the Great Salt Lake Ecosystem.